

## **VERMILION FLYCATCHER**

*Pyrocephalus rubinus*

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**Management Status:** Federal: None  
California: Species of Special Concern (CDFG, 1998)

### **General Distribution:**

The Vermilion Flycatcher is a widespread tropical species whose range barely extends northward into the southwestern United States, where it breeds locally northward to southeastern California and southern Nevada. It is more abundant from central Arizona, central New Mexico, and west-central Texas south (with some range gaps) through northern Chile and central Venezuela (AOU, 1998), where it breeds from sea level to 10,000 ft. (3000 m). In North America, its winter range is largely the same, although it does withdraw toward the tropics at this season. During winter months some individuals disperse east, west, and north of their breeding range.

### **Distribution in the West Mojave Planning Area:**

The Vermilion Flycatcher is a local breeder in southeastern California. This species has undergone a significant and interesting range-shift in California during the past five decades. It was formerly a widespread and fairly common breeder throughout the Sonoran Desert, with numerous records for the Coachella and Imperial valleys (van Rossem, 1911; Hanna, 1935) and along the Lower Colorado River (Grinnell, 1914), but there were no breeding records from an elevation greater than 500 ft. (150 m; Grinnell and Miller, 1944).

This change in status, from breeder to early winter visitor, has been documented in other parts of its Sonoran Desert range (Rea, 1983:191). By contrast, the Vermilion Flycatcher is now virtually unknown as a breeder in the Sonoran Desert of California (Rosenberg et al., 1991; M.A. Patten unpubl. data), but breeds in many locations in the Mojave Desert, almost all of which are well above 500 ft. elevation. For example, this species breeds regularly (up to 3 pairs) in Morongo Valley (San Bernardino County; Garrett and Dunn, 1981; Patten, 1995), at both Covington Park and the northern edge of the Big Morongo Canyon Preserve, which lies at an elevation of over 2500 ft. (750 m). It is possible that the multiple individuals observed in the 1930s in suitable habitat in early spring at Twentynine Palms (San Bernardino County) were part of a historic breeding population there, but no evidence for nesting was reported (Carter, 1937).

Additional areas within the WMPA where the Vermilion Flycatcher currently breeds or has recently bred are Yucca Valley, San Bernardino County (up to 3 pairs from 1991 through 1999; M. A. Patten pers. obs.); Jess Ranch in Apple Valley, San Bernardino County (1 pair in 1995 and 1997; S. J. Myers in litt.); Fort Irwin, San Bernardino County (1 pair in 1996; R. Camp pers. comm.); Ridgecrest, Kern County (1 pair in 1992 and 1994; *Am. Birds* 46:1179, 1992, *Natl. Audubon Soc. Field Notes* 48:989, 1994); China Lake, Kern County (1 pair in 1994; *Natl. Audubon Soc. Field Notes* 48:989, 1994); Antelope Valley northwest of Lancaster, Los Angeles County (1 pair in 1998; Los Angeles County Breeding Bird Atlas data); and Leona Valley, Los

Angeles County (1 pair in 1994; K. L. Garrett in litt., *Natl. Audubon Soc. Field Notes* 48:989, 1994).

Just outside the southeastern boundary of the WMPA, it has recently bred at Lake Tamarisk in Desert Center, Riverside County (up to 2 pairs from 1994 through 1997; M.A. Patten pers. obs.) and in the residential area at Iron Mountain Pumping Plant, San Bernardino County (1 pair in 1996 and 1997; M. A. Patten pers. obs.). Also just northwest of the WMPA were 2 pairs at the South Fork of the Kern River Preserve (Kern County) in 1996 and 1998 (*Natl. Audubon Soc. Field Notes* 50:997, 1996, M.A. Patten pers. obs.).

### **Natural History:**

The Vermilion Flycatcher is a distinctive species. Indeed, males are among the more strikingly-plumaged and unmistakable birds that occur in California. Females and young males have more subtle plumage, although any small flycatcher with light streaking on the breast and a rose or pink wash to the belly and vent ought to be readily identifiable as this species. Immature female are duller still, often with only a light yellow wash on the belly. Like its closest relatives, the phoebes (*Sayornis* spp.), this flycatcher is partial to open areas and often perches in a conspicuous location from which it sallies frequently attempting to capture prey. No systematic studies have been conducted, but its prey consists largely of flying insects, although, again like phoebes, it will take arthropods from the ground (Bendire, 1895).

This species is mainly a summer visitor to the southwestern United States, although it regularly winters in the Sonoran and Chihuahuan deserts and in cismontane southern California. Birds that migrate arrive on their breeding grounds by late February or early March and typically depart by late September (egg dates range from early March to early July; Bent, 1942). Their open-cup nests are usually placed 8-20 ft. (2.5-6 m) above the ground in a horizontal fork of a large tree (Bent, 1942); some nests have been reported as high as 60 ft. (18 m) above the ground (Dawson, 1923). A typical clutch consists of 3 eggs, although nests with 2 or 4 eggs have been recorded (Bent, 1942). The clutch is incubated for 12 days before the chicks hatch, and another two weeks is required before the young fledge. Two broods are frequent.

### **Habitat Requirements:**

When the Vermilion Flycatcher formerly bred in the Sonoran Desert of California, it was associated with low-lying, open riparian areas with accessible water (either pooled or flowing) and dominated by mesquite (*Prosopis* spp.). Willow (*Salix* spp.) and Fremont cottonwood (*Populus fremontii*) are also used (Grinnell and Miller, 1944). This species continues to occupy habitat similar to this description, at least in part, at Morongo Valley. Elsewhere in the Mojave Desert, this species invariably uses parkland or golf course settings that support either native or non-native trees, and may or may not have accessible water; indeed, there is a substantial parkland element to the occupied habitat at Morongo Valley. In native habitats, trees used for nesting range from massive cottonwoods, sycamores (*Platanus* spp.), and even oaks (*Quercus* spp.) to more mid-sized trees such as willow and mesquite.

### **Population Status:**

Estimates of overall population size of the Vermilion Flycatcher in California are not available, but it is likely under 100 pairs. It is possible that the overall population in the State has changed little during this century, with instead there being only a major shift in breeding locations

from the Sonoran Desert to the Mojave Desert, a shift reminiscent of the one by the Summer Tanager (*Piranga rubra cooperi*) in southern California (Johnson, 1994). However, given the extensive habitat along the Lower Colorado River that formerly supported this species (Grinnell, 1914; Rosenberg et al., 1991), it seems likely that this species has declined to some extent in California since the turn of the century. Nevertheless, as noted above, this flycatcher has increased as a breeding species, in terms of both numbers of pairs and breeding locales, during the 1990s.

### **Threats Analysis:**

The primary threat to the Vermilion Flycatcher is habitat loss. The destruction of much of the native riparian habitat along the Lower Colorado River, and its replacement in many areas by non-native salt cedar (*Tamarix* spp.), has probably led to its near-extirpation as a breeding species there (Rosenberg et al., 1991). The increase in flycatcher nesting locations in the Mojave Desert of California perhaps can be attributed to the advent of various man-made habitat oases, such as parks, golf courses, and suburban housing places, in areas formerly supporting desert scrub. Unfortunately, the parks and golf courses now frequently used by nesting Vermilion Flycatchers provide excellent foraging habitat for the Brown-headed Cowbird (*Molothrus ater*), a brood parasite known to use this flycatcher as a host (Hanna, 1936).

A Western Scrub-Jay (*Aphelocoma californica*) depredated a Vermilion Flycatcher nest at Morongo Valley in May 1997 (C. McGaugh in litt.). This jay is commonly associated with suburbia and parkland in southern California, and may pose a threat to Vermilion Flycatchers in some areas. However, the ranges of the two species overlap little, so in general impacts by Western Scrub-Jays are not threat to Vermilion Flycatchers in California.

### **Biological Standards:**

Management of the Vermilion Flycatcher within the WMPA could be accomplished by preservation of suitable riparian and desert wash habitats (e.g., through restricted access, removal of livestock, and prohibition of tree cutting). In many areas, the quality of this habitat could be enhanced through removal of non-native salt cedar and compensatory planting of native mesquite, palo verde, or willow trees. Adjacent parkland and golf courses may not require further protection or management, save potential efforts to trap and remove cowbirds from these areas, but more study is needed. Provided that riparian and riparian-parkland habitats are retained within the WMPA, it is unlikely that the Vermilion Flycatcher will decrease in, let alone be extirpated from, this region.

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